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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,920	10/29/1999	ATSUSHI WATANABE	392.1666/JDH	6526

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EXAMINER

LU, TOM Y

ART UNIT PAPER NUMBER

2621

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/429,920

Applicant(s)

WATANABE ET AL.

Examiner

Tom Y Lu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/29/1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 November 2002 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment and written response filed on November 27, 2002 has been entered.
2. Claims 1-13 are pending. Claims 8-13 were newly added.

Response to Arguments

3. Applicant's arguments filed on November 27, 2002 have been fully considered but they are not persuasive.
4. Upon review of references, and in light of applicant's arguments, examiner incorporates new references in the following Non-final Office Action.

Drawings

5. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1-7, and 11-13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. (The so-called "unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or color scale"

in claims 1, 2, 4 and 8 has no clear support in the specification. Examiner fails to understand why such converting process being added since the image data stored in the memory is already in digital form. In addition, examiner fails to find any explanation in the specification for “the intermediate image data”, and why such converting process is needed for “the intermediate data”. Claim 3, 5-7 and 11-13 variously depend from inadequately described independent claims.)

7. Claims 1, 2, 4 and 8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. (Examiner fails to understand the claim language of “switch mode or superposition mode”. In addition, examiner does not find explanation in the specification for those two modes, which does not enable examiner to fully understand the invention. Applicant is advised to provide clear definition or explanation for such term.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe et al (U.S. Patent No. 5,705,906) in view of Jyumonji (U.S. Patent No. 5,987,591).

- a. As applied to claim 4, which is representative of claims 1, 2 and 8-10, Tanabe discloses a portable teaching pendant is connected to robot controller through a

cable (Tanabe at column 3, lines 15-16, discloses a cable connecting the personal computer 30 to the teaching pendant 10 has a length of several meters. Personal computer 30 in combination with controller 20 in Tanabe corresponds to the claimed "controller"); and teaching pendant comprises a unit for generating or editing a robot program (Tanabe at column 3, lines 24-26, discloses the teaching pendant 10 can be used as a display unit for creating a program for the robot), a unit for operating the robot, and a display unit, and can display on the display unit an image converted into the gray scale (Tanabe at column 3, lines 25-28, discloses the teaching pendant 10 can display a state of the robot. A state of the robot contains the input data mentioned at column 3, lines 31. Such input data corresponds to the claimed "an image converted into the gray scale"), and comprises a unit used for manipulation for image processing (Tanabe at column 3, lines 26-27, discloses the teaching pendant 10 includes functions necessary for robot teaching operations); and display unit displays, indication for generating or editing of robot program and indication for manipulation of image processing, together with an image simultaneously (Tanabe, at column 3, lines 36-48, discloses since the liquid crystal display unit 13 of the teaching pendant 10 is also used as a display unit for the personal computer 30, an operating system... with a picture or icon expressing a function displayed on a screen. Note since such display unit can be used as an operating system, it inherently allows users to process multi-tasks simultaneously), or allows a user to select either a switching mode or a superposition mode (claim language of "a switching mode and a

superposition mode” has no support in the specification. Therefore, examiner tries to interpret such limitation as fairly as possible. Tanabe at column 2, line 42, discloses a jog key switch 15. When it is used, the teaching pendant is operating under switching mode. When the crystal display unit 13 is used for creating program and displaying image data, the pendant is under superposition mode). Tanabe at column 2, lines 29-33, discloses a robot system includes a teaching pendant 10, a robot controller 20, and a personal computer 30, which are connected with each other, however a robot main body is not shown but is connected to the robot controller (note in conventional technology, a camera is mounted on the robot to obtain the image data, Tanabe assumes it is the case in his system, therefore, a step of obtaining image data is omitted. However, for the sake of clarity, examiner incorporates a secondary reference of Jyumonji to show such step exists because without such step, the teaching pendant would not be able to obtain the state of robot and input data at column 3, lines 30-31). Jyumonji discloses a unit for fetching an image from a camera (Jyumonji, at column 6, lines 34-35, discloses the camera interface 203 serves as input-output device for the CCD camera 30); memory which stores image data from the camera or intermediate image data obtained in a stage of image processing (Jyumonji, at column 6, lines 39, discloses the image memory 204); and a unit for converting image data from the camera, the image data from the camera stored in the memory, or intermediate data into a gray scale or a color scale (Jyumonji, at column 6, line 38, discloses the image taken is converted into gray scale). At the

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time the invention was made, it would have been obvious to show a robot system with a camera to obtain image data. One of ordinary skill in the art would have been motivated to do this because such a camera device can include a view field covering a supply range of the workpiece or environment, and is transmitted to an image processor to determine the state of the robot system. (Note Tanabe is aware of such step exists. However, Tanabe just does not explicitly disclose such step in the invention. The personal computer 30 contains graphic interface device 31 in Tanabe would inherently qualify to perform image processing if the camera is not a digital camera.)

- b. As applied to Claim 3, which is representative of claims 5 and 11, Tanabe discloses a unit for displaying and superposing geometric graphics on the image displayed on the display unit in accordance with the operation procedure of image processing and specifying an image processing with respect to the image (Tanabe at column 3, lines 40-44, discloses when a program of the robot is to be create, when a state of the robot is to be displayed or when a teaching operation is to be carried out, there can be constructed such an operation environment that operation is intuitively carried out in an easy to understand fashion with a picture or icon expression a function displayed on a screen. Note such picture corresponds to the claimed "geometric graphics").
- c. As applied to Claim 6, which is representative of claims 12 and 13, Tanabe discloses a part of the operation unit of the teaching pendant is configured by a touch panel (Tanabe at column 2, line 42, discloses a touch panel 16).

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- d. Referring to Claim 7, Tanabe discloses a unit for incorporating an instruction to process an image into a program of robot (Tanabe: column 3, lines 42-48).

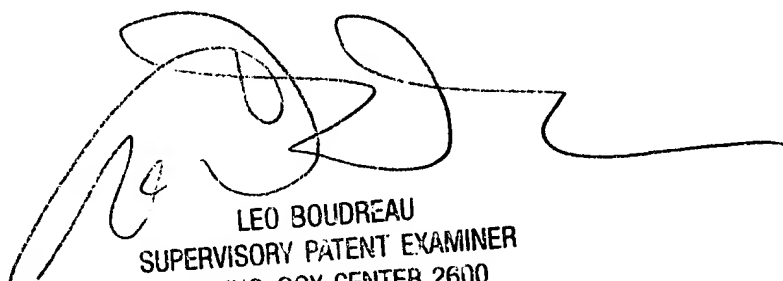
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5397 for regular communications and (703) 305-5397 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Tom Y. Lu
February 6, 2003



LEO BOUDREAU
SUPERVISORY PATENT EXAMINER
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